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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,139	02/20/2004	D. Peter Beirne JR.	3759600-144128	5359

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EXAMINER
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KENNEDY, JOSHUA T

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/784,139

Applicant(s)

BEIRNE ET AL.

Examiner

Joshua T. Kennedy

Art Unit

3679

JK

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

Claims 1-20 have been examined.

#### ***Claim Objections***

Claims 3 and 13 are objected to because of the following informalities: Claims 3 and 13 recite the limitation "the plastic" in the first line of each claim. There is insufficient antecedent basis for this limitation in the claim because these claims do not depend from the claims that first set forth that the material is plastic. Appropriate correction is required.

Claims 6 and 16 are objected to because of the following informalities: Claims 6 and 16 recite the limitation "the tube" in lines 2 and 3 of each claim, respectively. There is insufficient antecedent basis for this limitation in the claim. They should read -- a tube--. Appropriate correction is required.

Claims 7, 8, 17, and 18 are objected to because of the following informalities: Each of the claims refers to "an upper surface and a lower surface spaced from the lower surface." This phrase is unclear and does not define any structure. It should read -- an upper surface and a lower surface spaced from the upper surface--.

Claim 14 is objected to because of the following informalities: It currently reads "the vertical members is in". This should be changed to -- the vertical member is in--. Appropriate correction is required.

Claim 10 is objected to because of the following informalities: It is unclear as to what the value of the hardness is because "Shore A 90 hardness" is not a range as claimed, rather only one value. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venegas Jr., et al (US 5,261,647) in view of Graham (US 6,520,461).

As to Claim 1. Venegas Jr. et al disclose a fall protection device for an opening in a roof, said device comprising:

- a plurality of vertical members (26a) each having a lower end (25a);
- a plurality of horizontal members (54) connecting the vertical members;
- a plurality of bearing feet (18) each having a connecting portion (22) and a bearing portion (18);

wherein each bearing foot is secured to the lower end of one of said plurality of vertical members so that the bearing portion of the bearing feet support the vertical members above the roof (Fig 1).

However, Venegas Jr. et al do not disclose a hardness of the bearing portion being greater than a hardness of the connecting portion.

Graham teaches a leg support having a plastic foot having "reinforcing ribs to deform and slidably receive a sleeve in friction fit manner." (Col 2, Lines 24-28) Because the ribs deform, it is inherent that the connection portion has a hardness less than that of the bearing portion. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the metal stanchion portion of Venegas Jr. et al to be constructed of plastic and have the reinforcing rib portions of

Art Unit: 3679

Graham because that would allow for the foot to be deformed and slidably received in the leg in a friction fit manner.

As to Claim 11. Venegas Jr. et al in view of Graham discloses a fall protection device for an opening in a roof said device comprising:

- at least one rail section (10) having a vertical member (26);

- wherein the vertical member has a lower end (25);

- a bearing foot (18) having a connecting portion (22) and a bearing portion (18);

- wherein the bearing foot is secured to the lower end of the vertical member by the connecting portion so that the bearing portion supports the vertical member above the roof (Figs 1 & 2); and

- wherein a hardness of the bearing portion is greater than a hardness of the connecting portion (Graham; Col 2, Lines 24-28).

As to Claim 20. Venegas Jr. et al in view of Graham discloses a fall protection device for an opening in a roof, said device comprising:

- at least one rail section (Venegas Jr.10) having a vertical member (26);

- wherein the vertical member is in the form of a metal tube having an open lower end (26; Claim 1, lines 27-30);

- a bearing foot having a connecting portion (22) and a bearing portion (18);

Art Unit: 3679

wherein the bearing foot is secured to the lower end of the vertical member by the connecting portion so that the bearing portion supports the vertical member above the roof (Fig 1);

wherein the connecting portion of the bearing foot extends into the open lower end of the tube and resiliently engages an interior surface of the tube to secure the bearing foot thereto (Fig 2);

wherein a hardness of the bearing portion is greater than a hardness of the connecting portion (Col 2, Lines 24-28); and

wherein the connecting portion and the bearing portion are plastic (Graham; Col 1, Lines 31-33) and co-molded so that the bearing foot is of unitary construction (Venegas Jr.; 18 & 22).

As to Claims 2 and 12. Venegas Jr. et al in view of Graham discloses each bearing foot being molded of plastic (Graham; Col 1, Lines 31-33).

As to Claims 3 and 13. Venegas Jr. et al in view of Graham does not disclose the plastic as being polypropylene.

As a commercially available, inexpensive plastic, polypropylene is a well known material for use in this art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the plastic material used to be polypropylene because the selection of a known material based upon its suitability for

Art Unit: 3679

the intended use has long been deemed to be a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

As to Claims 4 and 14. Venegas Jr. et al in view of Graham discloses each of the plurality of vertical members as in the form of a tube (Venegas Jr. et al, Fig 2).

As to Claims 5 and 15. Venegas Jr. et al in view of Graham discloses each bearing foot having a passage (34) formed therein which communicates an interior space of a tube with ambient space outside the tube.

As to Claims 6 and 16. Venegas Jr. et al in view of Graham discloses the connecting portion of the bearing foot extends into an open lower end of the tube (Figs 1 & 2) and resiliently engages an interior surface of the tube to secure the bearing foot thereto.

As to Claims 7 and 17. Venegas Jr. et al disclose the bearing portion being annular shaped (Fig 2) having an upper surface and a lower surface spaced from the upper surface and inner and outer edges of the lower bearing surface being free of sharp corners.

As to Claims 8 and 18. Venegas Jr. et al in view of Graham discloses the bearing portion having an upper surface and a lower surface spaced from the upper surface, but does not disclose the thickness of the bearing portion being at least 0.25 inches.

It is not inventive to state the optimum values of a thickness of the bearing portion. Although silent on the dimension, the device of Venegas Jr. et al inherently has a thickness relative to the size of the leg support. Through routine experimentation and optimization, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the leg support of Venegas Jr. et al in view of Graham to have the thickness of the bearing portion being at least 0.25 inches producing no new and unexpected results.

As to Claims 9 and 19. Venegas Jr. et al disclose the connecting portion and the bearing portion being co-molded so that each bearing foot is of unitary construction (18 and 22; Fig 2).

As to Claim 10. Venegas Jr. et al in view of Graham discloses the hardness of the connection portion and the hardness of the bearing portion to be Shore A 90 hardness.

It is not inventive to state the optimum values of a hardness of the connection and bearing portions. Although silent on the mechanical property value, the plastic used in this device inherently has a hardness value. Through routine experimentation and optimization, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the leg support of Graham to have a hardness of the connection and bearing portions to be Shore A 90 hardness.



### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Publication No 2004/0104382 to Collins cited to show a similar guard rail for a roof access hatch.

US Patent 6860472 to Striebel cited to show a similar fence system with bearing feet insertable into a vertical member.

US Patent 6679481 to McNalley cited to show a similar fence system with bearing feet insertable into a vertical member.

US Patent 6643982 to Lapp cited to show bearing feet insertable into a vertical member.

US Patent 5667199 to Hamm cited to show a similar fence system with bearing feet insertable into a vertical member.

US Patent 5312089 to Venegas Jr. et al cited to show a similar fence system with bearing feet insertable into a vertical member.

US Patent 6688046 to Perkins cited to show a similar guard rail for a roof access hatch.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua T. Kennedy whose telephone number is (571) 272-8297. The examiner can normally be reached on M-F: 7am - 3:30 pm.

Art Unit: 3679

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JTK  
7/18/2005



GREGORY J. BINDA  
PRIMARY EXAMINER